BACKGROUND PAPER

15 August 00

Joint Aircraft Survivability to Man-Portable Air Defense Systems (JASMAN)
Joint Feasibility Study (JFS)

Purpose: Mitigate the threat against joint air operations posed by man-portable air defense system (MANPADS) missiles.

Problem: Increasing sophistication and proliferation of infrared (IR) MANPADS amplify operational risk for employing air assets in support of joint operations. This increased risk limits a Joint Force Commander's options for conducting air operations in the low to mid-altitude regime.

Solution: JASMAN will test and evaluate enhanced joint tactics, techniques, and procedures (TTPs) and joint employment concepts (CONOPS) to mitigate risks to air operations in a MANPADS environment. Potential TTPs and CONOPS could include maneuver; innovative employment of equipment and personnel (including current aircraft self-protection measures); and detailed courses of action. All phases of air operations will be considered (takeoff and landing; en route and RTB; and ingress, egress, and mission objective) in realistic tactical environments.

Status: In July 2000, OSD directed JASMAN to conduct a JFS that will conclude in July 2001. The purpose of the JFS is to determine the necessity and feasibility of a follow-on Joint Test. The JASMAN JFS will start with a rigorous evaluation of completed, ongoing, and planned activities; this, along with warfighter input and feedback, will determine the necessity of the proposed joint test. Technical feasibility will be evaluated using a structured dendritic analysis to decompose the problem statement into test issues, data elements, test measures, etc. An evaluation of detailed test and analysis procedures, along with an estimate of required resources, will contribute to the feasibility determination.

Current activities:

- Build a "who's doing what in IR" technical and operational baseline to determine the state-of-the-art in IR MANPADS mitigation efforts.
  - Include documented TTPs/CONOPs as well as operator-developed alternative procedures.
  - Include technology-based efforts such as countermeasures research and development (flares, jammers, etc.); modeling and simulation (digital, hardware-in-the-loop, and man-in-the-loop); test and evaluation programs; and other ongoing studies.
- Work with the JASMAN Joint Warfighter Advisory Group (JWAG) to identify potential opportunities for enhancements.
- Meet with potential customers to determine the focus and priority of potential legacy products.

- Work with the JASMAN Joint Technical Advisory Group (JTAG) to develop test and analysis procedures, scope the joint test, and evaluate the feasibility of the proposed test.

Further Information:

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